



DYNE 5.0/6.0/8.0L-1P-A

The DYNE 5.0/6.0/8.0L-1P-A series is designed for residential hybrid systems. The inverter can work with DyNESS low-voltage lithium-ion battery DL5.0X/DL5.0C/ Powerbox Pro to maximize self-consumption and provide backup power if the grid fails and there is not enough PV power to cover load demand.

- ◆ Generator connectivity with multiple input methods and automatic generator On/Off control
- ◆ Automatic UPS switching(<4ms)
- ◆ Supports peak shaving control in both "self-use" and "generator" mode
- ◆ Up to 135A(5.0/6.0K) and 190A(8.0K) max charge/discharge current
- ◆ 6 customizable charge/discharge time settings
- ◆ 10 second 200% surge power backup overload capability
- ◆ Supports 1ph and 3ph flexible connection with max 36kW(5.0/6.0K) and 48kW(8.0K) in parallel

Datasheet

Model	5.0L-1P-A	6.0L-1P-A	8.0L-1P-A
Input Dc (PV side)			
Recommended max. PV power	8 kW	9.6 kW	12.8 kW
Max. input voltage		600 V	
Rated voltage	300 V		
Start-up voltage	90 V		
MPPT voltage range	90 - 520 V		
Max. input current		16 A / 16 A	32A/20A
Max. short circuit current		24 A / 24 A	36A/30A
MPPT number/Max. input strings number		2/2	2/3
Battery			
Battery type	Li-ion		
Battery voltage range	40 - 60 V		
Max. charge / discharge power	5 kW	6 kW	8 kW
Max. charge / discharge current	112 A	135 A	190 A
Communication	CAN/RS485		
Output AC (Grid side)			
Rated output power	5 kW	6 kW	8 kW
Max. apparent output power	5.5 kVA	6.6 kVA	8.8 kVA
Operation phase	1/N/PE		
Rated grid voltage	220 V/230 V		
Rated grid frequency	50 Hz / 60 Hz		
Rated grid output current	22.7 A / 21.7 A	27.3 A / 26.1 A	36.4 A / 34.8 A
Max. output current	25 A	30 A	40 A
Power factor	>0.99(0.8leading-0.8lagging)		
THDi	< 2%		
Input AC (Grid side)			
Input voltage range	187-253 V		
Max. input current	34.1 A	40 A	50 A
Frequency range	45-55 Hz/55-65 HZ		
Output AC (Back-up)			
Rated output power	5 kW	6kW	8 kW
Max. apparent output power	2 times of rated power, 10s		
Back-up switch time	<4ms		
Rated output voltage	1/N/PE, 220 V/230 V		
Rated frequency	50 Hz/60 Hz		
Max. output current	22.7 A	27.3 A	36.4 A
THDv (@linear load)	<2%		
Efficiency			
Max. efficiency	>97.5%		
EU efficiency	>96.2%		
Protection			
DC reverse-polarity protection	Yes		
Ground fault monitoring	Yes		
Integrated AFCI (DC arc-fault circuit protection)	Yes(1)		
Protection class/Over voltage category	I /II		
General Data			
Dimensions (W*H*D)	440*598*205mm		437*675*215 mm
Weight	24kg		27kg
Topology	High frequency isolation (for battery)		
Operating ambient temperature range	- 40-60 °C		
Ingress protection	IP66		
Cooling concept	Natural convection		Intelligent redundant fan-cooling
Max. operation altitude	4000M		
Grid connection standard	NRS 097-2-1, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA		
Safety/EMC standard	NRS 097-2-11EC/EN 62109-1/-2,1EC/EN 61000-6-1/-2/-3/-4		
Features			
DC connection	MC4 plug (PV port)/ Terminal Block (BAT port)		
AC connection	Terminal Block		
Display	LED + APP		
Communication	RS485, CAN, Optional: Wi-Fi, LAN		